NWS	G FORM E-5  U.S. DEPARTMENT OF COMMERCE NOAA, NATIONAL WEATHER SERVICE	HSA OFFICE: Marquette, MI
MO	NTHLY REPORT OF RIVER AND FLOOD CONDITIONS	REPORT FOR (MONTH/YEAR): July 2012
TO:	NATIONAL WEATHER SERVICE (W/OH12x1) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 7116 SILVER SPRING, MD 20910	DATE: September 6, 2012
		SIGNATURE: Robin J. Turner, MIC

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41).

Justin Titus, Meteorologist Keith Cooley, Meteorologist

An X inside this box indicates no flooding occurred within this Hydrologic Service Area.

### **July Flooding**

Runoff from heavy rain produced by training thunderstorms washed out several Forest Service roads in central Iron County. The most roads were washed out just south of Perch Lake, which is north of Iron River, MI.

Also, heavy rain from thunderstorms resulted in 1 to 2 feet of standing water on roads in Escanaba, MI. This flooding is, however, relatively common due to poor drainage problems in parts of the city.

## **July Precipitation**

Much of the precipitation in July was produced by showers and thunderstorms that were more hit and miss than widespread precipitation events. Therefore, while most areas were near normal for precipitation, some areas such as Ironwood and Munising saw below normal. This was due more to chance occurrence than any large scale, traceable features.

Below is a chart of some of the larger cities in the Upper Peninsula, with monthly precipitation in inches, the amount of inches above or below normal for the month and any applicable record high or low rank.

Location	Precipitation	Normal	Above/Below	Rank
WFO Marquette	4.08	2.91	1.17	
Marquette City	3.12	2.85	0.27	
Houghton Airport	2.97	2.91	0.06	
Ironwood	2.78	3.99	-1.21	
Iron Mountain	3.69	3.58	0.11	
Manistique	3.48	3.05	0.43	
Munising	2.26	3.16	-0.90	
Newberry	4.75	2.82	1.93	
Ontonagon	3.38	3.25	0.13	

Other monthly precipitation totals from coop observers:

Location	Precipitation
	(inches)
Amasa (Iron County)	5.86
Atlantic Mine (Houghton County)	3.34
Baraga 7NW (Baraga County)	4.19
Bergland Dam (Ontonagon County)	4.29
Big Bay (Marquette County)	3.42
Big Bay 9SW (Marquette County)	4.11
Chatham (Alger County)	4.47
Clarksburg (Marquette County)	4.28
Cooks (Schoolcraft County)	4.16
Copper Harbor (Keweenaw County)	3.84
Garden Corners (Delta County)	2.42
Gladstone (Delta County)	4.03
Greenland 6N (Ontonagon County)	3.82
Gwinn (Marquette County)	4.07
Harvey (Marquette County)	4.14
Herman (Baraga County)	4.91
Ishpeming 7NNE (Marquette County)	3.62
Jacobsville (Houghton County)	4.76
Mohawk (Keweenaw County)	5.48
Menominee (Menominee County)	4.33
Norway (Dickinson County)	3.09
Painesdale (Houghton County)	4.95
Stambaugh (Iron County)	5.37
Twin Lakes (Houghton County)	4.65
Watersmeet (Gogebic County)	M
Watton (Baraga County)	6.15

# **Drought Discussion**

According to the July 31<sup>st</sup>, 2012 release of the U.S. Drought Monitor, much of Upper Michigan was classified under Abnormally Dry (D0) drought. For the latest drought status, please go to <a href="http://www.drought.unl.edu/dm/monitor.html">http://www.drought.unl.edu/dm/monitor.html</a>.

#### **July Temperatures**

Below is a table of some of the larger cities in the Upper Peninsula, with average monthly temperature and number of degrees above or below normal for the month, and the rank of an all-time warmest or coldest month, where applicable.

Location	Temperature	Above/Below	Rank
	(degrees)		
WFO Marquette	69.2	4.1	4 <sup>th</sup>
Marquette City	72.2	6.1	1 <sup>st</sup>
Houghton Airport	68.5	3.5	
Ironwood	70.3	3.4	
Iron Mountain	73.0	5.3	4 <sup>th</sup>
Manistique	69.7	4.7	$2^{\text{nd}}$
Munising	69.5	4.9	5 <sup>th</sup>
Ontonagon	71.2	4.0	3 <sup>rd</sup>
Newberry	70.6	5.4	$2^{\text{nd}}$

## **July River Levels**

According to the United States Geological Survey, July streamflow was generally normal.

#### **July Products Issued**

Flood Warnings (FLW): 0
Flood Advisories (FLS): 1
River Statements (RVS): 1
Flash Flood Watches (FFA): 0
Flash Flood Warnings (FFW): 1
Flash Flood Statements (FFS): 2